

cell except the extreme apex, the second and third cubital cells, and the apical third of the second discoidal cell.

Hab. S.W. of Lake Chilwa, Nyasaland (*S. A. Neave*), January 1914.

Cryptosalius elgonensis, sp. n.

♀. Fusco-ferruginea; mesonoto, abdomine flagelloque nigris; alis subhyalinis, anticis fusco-fasciatis.

Var. Mesonoto fusco-ferrugineo.

Long. 10–11 mm.

♀. Posterior ocelli a little nearer to the eyes than to each other. Head and thorax closely microscopically punctured, the mesonotum nearly twice as long as the pronotum in the middle; propleuræ with microscopic oblique striæ, mesopleuræ with large sparse punctures interspersed with the minute puncturation. Carina of the scutellum almost obsolete. Median segment, legs, and neuration as in *perluctuosus*; fasciæ of the fore wing as in that species, the second fascia a little broader in the discoidal cells.

Hab. Southern slopes of Mt. Elgon, 5100–5800 ft. (*S. A. Neave*), June 1911; Daro Forest, Toro, Uganda Protectorate, 4000–4500 ft. (*S. A. Neave*), October 1911.

The pronotum is much shorter than in the allied species.

XLII.—Notes on *Fossorial Hymenoptera*.—XXXV. On new Sphecoidea in the British Museum. By ROWLAND E. TURNER, F.Z.S., F.E.S.

PROTOSTIGMUS, gen. nov.

Head large, much broader than the thorax. Eyes reaching the base of the mandibles, their inner margins almost parallel. Mandibles bidentate at the apex. Antennæ inserted very low down near the apical angles of the clypeus; scape long, rather less than half as long as the flagellum. Pronotum short, narrower than the mesonotum, rounded at the angles, the calli reaching back to the tegulæ; median segment short and small, opaque and without coarse sculpture. Abdomen not petiolate. Fore tarsi unarmed; hind tibiæ almost smooth, very feebly serrate towards the apex. Stigma large, more than twice as long as the greatest breadth, much smaller than in *Ammoplanus*. Radius

Spilomena indostana, sp. n.

♀. Nigra; mandibulis, antennis, callis humeralibus, tegulis pedibusque pallide flavis; alis hyalinis, venis testaceis, stigmatibus fuscis.

Long. 3 mm.

♀. Mandibles bidentate at the apex, the inner tooth broad and blunt; clypeus very strongly convex in the middle. Antennæ inserted low down by the sides of the clypeus, the scape fully half as long as the flagellum, first joint of the flagellum longer than broad, shorter than the second joint. Eyes distinctly divergent towards the clypeus, posterior ocelli nearer to each other than to the eyes. Head broader than the thorax, narrowed behind the eyes. Head and thorax slightly shining, microscopically punctured, the pronotum narrower than and below the level of the mesonotum. Median segment coarsely and closely reticulate, with two longitudinal carinæ near the middle, the space between the carinæ transversely striated; the sides of the segment closely obliquely striated, the apical slope granulate. Abdomen smooth and shining. Recurrent nervure interstitial with the first transverse cubital nervure; second cubital cell rectangular, the radial and cubital margins distinctly longer than the transverse cubital nervures. Stigma smaller and narrower than in *S. troglodytes*, Lind. Legs unarmed.

Hab. Bombay district (*Dr. Leith*).

Differs from *S. obliterata*, Turn., in the sculpture of the median segment, the colour of the nervures, and the presence of the first transverse cubital nervure.

Chlorion (Proterosphex) nyanzæ, sp. n.

♂. Niger; mandibulis in medio obscure fusco-ferrugineis; segmento mediano albido-hirsuto; alis fusco-hyalinis, cæruleo suffusis.

♀. Mari simillima.

Long., ♂ 19, ♀ 24 mm.

♂. Clypeus convex, with a longitudinal carina from the base to the middle; covered with short silver pubescence, intermingled with which are long black hairs. Eyes distinctly converging towards the clypeus, separated on the vertex by a distance about equal to the combined length of the two basal joints of the flagellum plus half the length of the third joint; the posterior ocelli nearer to each other than to the eyes. Pronotum short, not impressed in the middle,

the mesonotum rather thickly clothed with short black hairs. Scutellum subopaque, with an almost obsolete longitudinal impression; postscutellum without an impressed line. Median segment clothed with very short silver pubescence, and with long whitish hairs; the segment beneath the pubescence very finely transversely rugulose; the sides of the segment sparsely and shallowly punctured, with sparse black hairs. Petiole as long as the second joint of the hind tarsi; seventh tergite rather broadly truncate at the apex. Sternites sparsely clothed with long black hairs which become denser on the sides, eighth sternite narrowly rounded at the apex, with a longitudinal carina. First recurrent nervure received at about three-quarters from the apex of the second cubital cell, sometimes a little nearer to the apex.

♀. Sixth tergite narrowly rounded at the apex; sixth sternite convex, narrowly rounded at the apex, the hairs on the sternites short and very sparse.

Hab. Entebbe, Uganda (*C. G. Gowdey*), May to January; N.W. shores of Victoria Nyanza (*S. A. Neave*), September; Bukoba, German East Africa (*C. G. Gowdey*), June.

Nearly related to *C. hæmorrhoidalis*, Fabr. (*volubilis*, Kohl), but may be distinguished from the variety of that species with black legs by the white hairs and pubescence of the median segment and by the position of the first recurrent nervure, which in *hæmorrhoidalis* is interstitial with the second transverse cubital nervure; the apical tergite of the male is also much broader at the apex.

Chlorion (Proterospher) rufiscutis, sp. n.

♀. Nigra; mandibulis basi, clypeo, antennis, articulis 5 apicalibus exceptis, pronoto, tegulis, scutello, postscutello, pedibusque, coxis exceptis, ferrugineis; fronte clypeoque dense aureo-pubescentibus; alis hyalinis, venis ferrugineis, anticis margine apicali late infumatis.

♂. Feminae similis; flagello, clypeo basi, pronoto, scutello, postscutello, trochanteribus femoribusque basi nigris.

Long., ♀ ♂, 22 mm.

♀. Clypeus and front sparsely clothed with long fulvous hairs, which stand out from among the short golden pubescence. Inner margins of the eyes parallel; posterior ocelli scarcely as far from the eyes as from each other; eyes separated on the vertex by a distance equal to the length of the second joint of the flagellum plus half of the third joint. Scutellum with a delicate impressed longitudinal line which does not reach the base or the apex, strongly convex; post-

scutellum convex, feebly bituberculate. Median segment clothed with long whitish hairs which are denser on the apical and lateral surfaces than on the dorsal, finely and closely transversely striated. Petiole about as long as the second joint of the hind tarsi; abdomen pruinose, the apical margins of the segments brownish. Third abscissa of the radius shorter than the first. Comb of the fore tarsi long and very slender, fore metatarsus with ten long spines on the outer side and apex.

♂. Very similar to the female, but the pubescence on the face and clypeus paler; the petiole half as long again as the second joint of the hind tarsi; seventh tergite very broadly subtruncate at the apex; seventh sternite widely and shallowly emarginate; the eighth produced into a point at the apex, subcarinate longitudinally in the middle, the sides slightly sinuate.

Hab. Sinapunge, North Rhodesia (*O. Silverlock*), February 1911, ♀ ♂; Valley of N. Rukuru, Karonga, Nyasaland, 2000-4000 ft. (*S. A. Neave*), July 1910, ♀ ♂.

The eighth sternite of the male is shaped somewhat as in *malagassus*, Sauss., but is more distinctly pointed. The colouring of the female is very similar to that of *gorgon*, Kohl, but the sculpture of the median segment is very different; the postscutellum is also similar to that of *gorgon*, but the pronotum has a median sulcus in *rufiscutis* which is absent in *gorgon*.

Chlorion (Proterosphex) observabilis, sp. n.

♀. Nigra, robusta; pleuris, mesosterno segmentoque mediano dense pallido-aureo-pubescentibus; alis fusco-hyalinis, venis nigris.

Long. 26-30 mm.

♀. Clypeus with sparse long black hairs, closely covered with pale golden pubescence, convex; eyes separated on the vertex by a distance greater than the combined length of the two basal joints of the flagellum. Ocellar space slightly depressed, the posterior ocelli much nearer to each other than to the eyes. Vertex sparsely clothed with long black hairs, the temples with long pale golden hairs. Pronotum short, transverse; mesonotum opaque, rather closely clothed with short black hairs; scutellum shining, with a shallow longitudinal impression; postscutellum without a groove. Median segment, pleuræ, and mesosternum densely covered with very pale golden pubescence, with long hairs of the same colour

intermingled. Petiole short, as long as the third joint of the hind tarsi; abdomen subopaque.

Hab. Tero Forest, S.E. Buddu, Uganda, 3800 ft. (*S. A. Neave*), September 1911.

This is a stoutly built species allied to *bohemanni*, Dahlb., but differing in the pubescence of the median segment, pleurae, and mesosternum. The wings are also much paler and only faintly tinted with blue.

Chlorion (Proterosphex) bohemanni, Dahlb.

Sphex bohemanni, Dahlb. Hymen. Europ. i. p. 436 (1845). ♂.

Sphex kilimandjaroensis, Cameron, Sjöstedt, Kilimandjaro-Meru Exped. ii. p. 262 (1910). ♀ ♂.

Sphex transvaalensis, Cam. Ann. Transvaal Mus. ii. p. 140 (1910).

Hab. E. Africa, from Natal to Uganda; Pretoria (*Distant*); Mlanje, Nyasaland (*S. A. Neave*), November to March; Mt. Rungwe, near New Langenburg (*S. A. Neave*), November; Mt. Kokanjero, S.W. of Elgon, Uganda Protectorate (*S. A. Neave*), August.

Chlorion (Proterosphex) schoutedeni, Kohl.

Sphex schoutedeni, Kohl, Rev. Zool. Afric. iii. p. 205 (1913). ♂.

Hab. Mlanje, Nyasaland (*S. A. Neave*), March to June 1913.

Chlorion (Harpactopus) tyrannus, Sm.

Harpactopus tyrannus, Sm. Cat. Hym. B.M. iv. p. 264 (1856). ♀.

Sphex vagus, Rad. Journ. acad. sc. math. Lisboa, viii. p. 209 (1881). ♂.

Philanthus ramakrishnae, sp. n.

♀. Nigra; capite maximo; clypeo, orbitis dimidio inferiori latissime, macula obliqua utrinque inter antennis, macula frontali mediana, vertice macula parva utrinque, linea obliqua pone oculos, pronoto postice, tegulas, mesopleuris maculis duabus, scutello macula magna utrinque, segmento mediano macula magna basali utrinque maculaque elongata apicali utrinque, tergito primo fascia lata apicali interrupta, tergitis 2-5 fascia angusta apicali, sternitis 2-4 macula transversa apicali utrinque, coxis macula apicali, femoribus macula apicali, tibiis tarsisque flavis; alis hyalinis, leviter infuscatis, venis fuscis.

Long. 14 mm.

♀. Head very large, broader than the thorax; clypeus deflexed from the middle, the apical margin produced in the

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middle and rounded. Eyes touching the base of the mandibles, strongly divergent towards the clypeus, separated on the vertex by a distance equal to about twice the combined length of the two basal joints of the flagellum; posterior ocelli much nearer to each other than to the eyes. Clypeus shining, sparsely punctured; front finely and very closely punctured; vertex and thorax more strongly punctured. Basal area of the median segment smooth and shining, divided by a broad longitudinal groove; the apical slope steep, finely and very closely punctured. Abdomen minutely and closely punctured, the ventral surface much more coarsely and very sparsely punctured. Fore metatarsus with six spines.

Hab. Bababuddin Hills, Mysore, 4700 ft. (*T. V. Ramakrishna*), June 1, 1915.

Not very near any other species; the head is much larger than in *P. basalis*, Sm., and the median segment is shorter and very different in sculpture. In *P. dentatus*, Cam., the head is as large, but the clypeus and median segment are very different.

Motes rugifera, sp. n.

♀. Nigra; femoribus posticis ferrugineis; tarsis subtus brunneis; alis hyalinis, leviter infumatis, venis fusco-ferrugineis; unguiculis denticulatis.

Long. 11 mm.

♀. Clypeus clothed with delicate silver pubescence; third joint of the flagellum twice as long as the first, the second distinctly shorter; eyes separated on the vertex by a distance about equal to the length of the third joint of the flagellum. Pronotum obliquely depressed, with a shallow longitudinal median line, the middle of the hind margin level with the mesonotum. Thorax opaque, scutellum and postscutellum shining. Median segment longer than broad, narrowed towards the apex; the dorsal surface coarsely, rugosely, transversely striated, with a distinct longitudinal carina; the sides of the segment closely obliquely striated; the face of the posterior truncation indistinctly transversely striated, with a deep median sulcus. Tergites 1-3 with a broad but ill-defined apical band of dull whitish pubescence; sixth tergite bare, delicately punctured, narrow, the sides converging towards the apex, which is very narrowly truncate; second sternite not swollen at the base. Radial cell obliquely truncate at the apex; first abscissa of the radius as long as the second and third combined. Tarsal ungues long, with a

well-defined tooth near the middle. Comb of fore metatarsus almost obsolete.

Hab. Mabira Forest, Uganda (*C. G. Gowdey*), July 1913.

This is a true *Motes*, not one of the *cræsus* group of *Notoqonia*.

Tachysphex fulvicornis, sp. n.

♀. Nigra; mandibulis, apice excepto, clypeo dimidio apicali, antennis, tibiisque tarsisque anticis fulvo-ferrugineis; alis hyalinis, venis fusco-ferrugineis.

Long. 7 mm.

♀. Clypeus short, broadly truncate at the apex, the anterior margin strongly depressed. Head and thorax closely and very delicately punctured-rugulose; antennæ slender; second and third joints of the flagellum equal, each twice as long as the first joint. Eyes separated on the vertex by a distance slightly exceeding the combined length of the two basal joints of the flagellum. Thorax opaque; pronotum oblique, showing a distinct transverse dorsal surface, which is only slightly below the level of the mesonotum. Median segment much broader than long, abruptly truncate posteriorly; the dorsal surface coarsely longitudinally rugose-striate in the middle, finely punctured-rugulose on the sides; the apical slope finely and closely punctured, with a deep median groove; the sides of the segment obliquely striated. Abdomen finely shagreened; the two basal tergites with transverse spots of white pubescence at the apical angles; pygidial area elongate-triangular, slightly convex, finely and closely punctured. Comb of the fore tarsi long and slender; tarsi not unusually short, the fourth joint longer than broad. Wings rather short, the radial cell broadly truncate at the apex; third abscissa of the radius twice as long as the second, third cubital cell less than half as long again on the cubitus as on the radius.

Hab. Chapra, Bihar (*Mackenzie*).

Easily distinguished from other black *Tachysphex* by the colour of the antennæ, the sculpture of the median segment, and the dull opaque surface of the whole insect.

Trypoxylon fletcheri, sp. n.

♀. Nigra; abdomine rufo-ferrugineo; trochanteribus posticis, femoribus posticis dimidio basali, tibiis supra nigro-suffusis, tarsisque anticis intermediisque ferrugineo-testaceis; alis hyalinis, iridescentibus, venis fuscis.

Long. 8 mm.

♀. Head opaque; the clypeus covered with silver pubescence, with two small teeth in the middle of the apical margin. Eyes separated at the base of the clypeus by a distance not quite equal to the combined length of the two basal joints of the flagellum, and by about the same distance on the vertex; posterior ocelli very narrowly separated from the eyes, distinctly larger than the anterior ocellus. Flagellum thickened from the base to the apex, the first joint globular, the remaining joints longer than broad; the front longitudinally impressed below the anterior ocellus, produced into a minute tubercle between the antennæ, very finely and closely punctured. Thorax subopaque, minutely punctured; median segment smooth and shining, with a median longitudinal furrow, but no lateral furrows. Abdomen shining, very minutely punctured; the first segment longer than the second and third combined, the basal half forming a petiole, the apical half very gradually widened to the apex, where it is about half as broad as the apex of the second segment; the third about equal in length to the second and distinctly broader. Hind tibiæ without spines.

Hab. Shillong, Assam, 5000 ft. (*T. Bainbrigge-Fletcher*), October 1916.

XLIII.—Notes on *Petrodromus* and *Rhynchocyon*.

By OLDFIELD THOMAS.

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I OWE to the kindness of Mr. Ernest Warren, of the Natal Museum, Pietermaritzburg, the opportunity of examining a number of small mammals which had been sent to that museum from various South-African localities. Among them I may record an example of the rare *Otomys laminatus*, Thos. & Schw., from Induku-duku, near Umfolozi, and a *Petrodromus* from Manguzi, N. Zululand, the latter being the first-known occurrence of the genus south of the boundary of Portuguese S.E. Africa. This southern *Petrodromus* appears to represent a new subspecies, which may be called

Petrodromus tetradactylus warreni, subsp. n.

General essential characters of true *tetradactylus*, but colour greyer and less buffy throughout. Back with the buffy suffusion at a minimum, sides and hips clear grey,